The mean length of hospital stay was 32 nights in the traditional group and 19 nights in the early active group ($p < 0.001$). Excluding severely injured patients the mean stay was 29 nights and 10 nights ($p < 0.001$), respectively. There was no significant difference in the mal-union rate between the two groups. Ten patients were short at 3 months (0.5—3 cm) and eight of these had been treated by EHS. None were short at 2 years. Eight children were long at 2 years. Seven of these were treated with anatomical reduction. At 2 years they all had good clinical and functional results. Four cases (which were treated with an ExFix) had complications. In our population, a 40% reduction in the incidence of femoral fractures over the 6-year period was noted. The reduction has been in falls and sports injuries.

These modern treatments have resulted in a shorter hospital stay that has many advantages for the child and family as well as financial savings.

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Ottawa knee rules in management of acute injuries to the knee in accident and emergency

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Introduction: Judicious use of radiographs is important to avoid unnecessary radiation and waste of resources.

Aim: The purpose of this study was to audit our practice against the Ottawa knee rules.

Materials and methods: A retrospective review of A&E notes with documented acute knee injuries was carried out over a period of three months. A total of 172 patients with acute knee injuries (injury-consultation <72 h) were identified. Patients <16 years and >55 years were excluded. The notes of 138 patients were reviewed for adequacy of clinical examination and indications for knee radiographs. These were compared against Ottawa knee rules.

Results: There were 109 males and 29 females. The mean age was 33.1 years. Seventy three percent of the patients presented to A&E within 8 h of injury. Majority (89%) were seen by SHOs and ENPs. The most consistent clinical finding documented was site of tenderness (90%) followed by range of movement (67%). Ability to extend the knee (18%), ability to weight bear (11%) and walk four steps (7%) were poorly documented. The plain radiographs without adequate clinical examination were performed in 93% of patients. The radiographic findings were documented in only 24%. Only 8% of the patients required hospital admission.

Conclusions: Our audit showed that majority of knee radiographs were being carried out without adequate clinical examination. Unnecessary use of radiographs can be avoided by implementing clinical decision making rules such as Ottawa knee rules.

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Posterolateral corner reconstruction of the knee—A prospective study of clinical outcome

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The purpose of this study was to evaluate the outcome of posterolateral corner reconstruction of the knee, using prospective pre- and post-operative scoring and clinical evaluation.

We reviewed those patients who underwent posterolateral corner (PLC) reconstruction in our unit between October 2001 and October 2004. Seventeen patients were identified, all male. Mean age 35 years (range 22—46). Mean follow-up 21 months. The commonest mode of injury was football. All patients had damaged other structures in the knee. Fifteen patients also underwent ACL reconstruction, five PCL reconstruction, six LCL reconstruction, six meniscal repair, eight meniscal debridement and two patients had microfracture, all performed at the same operation. Patients were prospectively scored pre-operatively and at 3, 6, 12 and 24 months post-op (depending on length of follow-up), using Lysholm, IKDC 2000 and KOOS scoring systems. The knee scores showed a significant improvement in all patients post-op. Post-operatively one patient developed a chronic pain syndrome, one patient developed osteopenia and is under investigation for RSD. Two patients subsequently requested removal of the screw used for PLC reconstruction.

Conclusions: Injury to the posterolateral stabilizing structures of the knee usually occurs in association with other ligamentous injuries, in particular either or both of the cruciate ligaments. The recognition and adequate management of this injury is crucial, particularly in order not to compromise any associated ligament reconstructions.

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Altered signal intensity in the posterior horn of the medial meniscus: An MR finding of questionable significance

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MR imaging is an important modality in non-invasive evaluation of osseous and soft-tissue structures in the post-traumatic knee. However, it is sometimes impossible to determine with confidence if a focus of high signal intensity in the meniscus is confined to the substance of the meniscus or extends to the joint surface. This is a critical differentiation because the latter represents meniscal tears that can be treated arthroscopically, whereas the former represents degeneration or normal variants not amenable to arthroscopic intervention.

The aim of this study was to investigate occurrence of such borderline findings, specifically in relation to the posterior horn of the medial meniscus and to correlate with arthroscopic results.

Sixty-four patients with suspected post-traumatic internal derangements of the knee who underwent MR imaging prior to arthroscopy were evaluated retrospectively. There were 48 males and 16 females, mean age 28.2 years. Tears of the posterior horn of the medial meniscus were diagnosed unequivocally (Grade 3 signal) in 18 patients and equivocally (Grade 2/3 signal) in 10 patients. Arthroscopic correlation revealed 16 tears (89%) in the unequivocal group and one tear (10%) in the equivocal group.

Meniscal tear is unlikely when MR shows a focus of high signal intensity in the posterior horn of the medial meniscus that does not unequivocally extend to involve the joint surface. A trial of non-operative treatment is recommended in such cases. MR is a useful diagnostic tool, however, it should be used selectively, with history and clinical examination in evaluating internal derangements of the knee.

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Results of collagen covered autologous chondrocyte implantation (ACI-C) for symptomatic osteochondral defects in the knee

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We evaluated the clinical results of autologous chondrocyte implantation using collagen type 1/III membrane (ACI-C) which was performed for the treatment of symptomatic osteochondral defects of the knee.

One hundred and ninety nine patients, who underwent ACI-C as part of a prospective trial, were assessed clinically by their modified Cincinnati scores up to 4 years from the time of surgery. Arthroscopic assessment and biopsy of the neo-cartilage was also performed whenever possible. The mean preoperative Cincinnati score was 41.7 and at 1, 2, 3 and 4 years follow-up were 62.0, 61.2, 58.0 and 61.2, respectively. The maximum improvement in clinical scores occurred with in the first year following ACI (20 points). Overall, the proportion of patients with excellent and good results was 65.8% at 1 year and 60.4% at 4 years.

The clinical results showed that patients with knee symptoms for less than 2 years at the time of surgery showed better results ($p = 0.01$). Those with less than two previous surgical procedures on the knee had superior clinical results when compared to those with three or more procedures ($p = 0.03$). Trochlear and lateral femoral condylar defects yielded better clinical results ($p = 0.05$) than other sites in the knee.

Patients who had hyaline-like neo-cartilage on biopsy tended to show more durable clinical scores at 3 and 4 years but these differences were not statistically significant ($p = 0.44$).

Older patients ($p < 0.001$) and those with a low preoperative Cincinnati score ($p < 0.001$) had poorer results. The percentage of patients with excellent and good results was significantly low among those with previously failed ACIs and mosaicplaties ($p = 0.05$). Those with multiple site implantations showed lower mean Cincinnati scores (mean = 56.4) when compared to those with single site implantation (mean = 64.2, $p = 0.04$).

Patient gender ($p = 0.20$) and the size of defect ($p = 0.97$) did not significantly influence the outcome.

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Snowsports injuries among orthopaedic surgeons

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Introduction: Snowsports are becoming increasingly popular. As a consequence the burden of related injuries is growing.

Objective: To assess the incidence of snowsport related injuries among orthopaedic surgeons.

Method: Questionnaires concerning involvement in snowsports and any associated injuries were administered to all Consultant and Specialist Registrars within the South West Thames region. Results